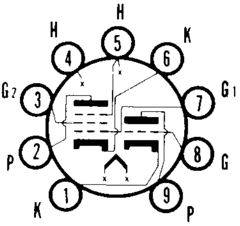


SYLVANIA TYPE 6CH8

MEDIUM MU TRIODE
SHARP CUTOFF PENTODE



9FT

MECHANICAL DATA

Bulb	T-6½
Base	E9-1, Small Button 9-Pin
Outline	6-2
Basing	9FT
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage	6.3 Volts
Heater Current	450 Ma
Heater-Cathode Voltage (Design Center Values)	
Heater Negative with Respect to Cathode	
Total D C and Peak	200 Volts Max.
Heater Positive with Respect to Cathode	
D C	100 Volts Max.
Total D C and Peak	200 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Triode Section	
Grid to Plate	1.6 μμf
Grid to (k+h+g3+I.S.)	1.9 μμf
Plate to (k+h+g3+I.S.)	1.6 μμf
Pentode Section	
Grid No. 1 to Plate	.025 μμf Max.
Grid No. 1 to (k+h+g3+g2+I.S.)	7.0 μμf
Plate to (k+h+g3+g2+I.S.)	2.25 μμf
Coupling	
Triode Grid to Pentode Plate	0.005 μμf
Pentode Grid No. 1 to Triode Plate	0.02 μμf
Pentode Plate to Triode Plate	0.04 μμf

6CH8 (Cont'd)

MAXIMUM RATINGS (Design Center Values)

	Triode Section	Pentode Section
Plate Voltage	300	300 Volts
Grid No. 3 Voltage		0 Volts
Grid No. 2 Supply Voltage		300 Volts
Grid No. 2 Voltage	See 6AM8 Rating Chart	
Positive Grid No. 1 Voltage	0	0 Volts
Plate Dissipation	2.6	2.0 Watts
Grid No. 2 Input:		
For Grid No. 2 Voltages up to 150 Volts	0.5	0.5 Watt
For Grid No. 2 Voltages Between 150 and 300 Volts	See 6AM8 Rating Chart	
Grid No. 1 Circuit Resistance[1]		
Fixed Bias	0.5	0.25 Megohm
Cathode Bias	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Triode Section	Pentode Section
Plate Supply Voltage	200	200 Volts
Grid No. 3 Voltage		0 Volt
Grid No. 2 Supply Voltage		150 Volts
Grid No. 1 Voltage	−6	Volts
Cathode Bias Resistor		180 Ohms
Plate Current	13	9.5 Ma
Grid No. 2 Current		2.8 Ma
Transconductance	3300	6200 μmhos
Amplification Factor	19	
Plate Resistance (approx.)	5750	300,000 Ohms
Grid No. 1 Voltage for Ib = 10 μa (approx.)	−19	−8 Volts

NOTE:

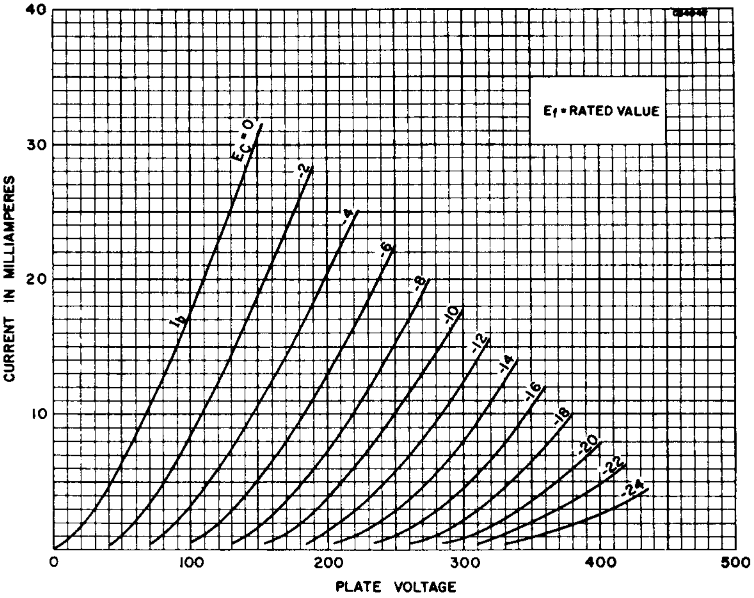
1. If either section is operating at maximum rated conditions, the Grid No. 1 circuit resistance for both sections should not exceed the stated values.

APPLICATION

The Sylvania Type 6CH8 has a medium mu triode and sharp cutoff pentode contained in one envelope. The pentode section may be used as a reactance tube, IF, video or AGC amplifier. The triode section may be used as a low frequency oscillator, sync clipper, sync separator or phase splitter.

AVERAGE PLATE CHARACTERISTICS

(TRIODE SECTION)



6CH8 (Cont'd)

AVERAGE PLATE CHARACTERISTICS
(PENTODE SECTION)

